

REMARKS

Entry of this Amendment is respectfully requested on the grounds that applicant has not had an opportunity to respond to the new ground of rejection set forth in the Office action of 23 March 2006. Entry of this Amendment is also requested on the grounds that applicant wishes to have these remarks in the record in the event an appeal becomes necessary.

The undersigned attorney wishes to thank the examiner for extending the courtesy of a telephonic interview during which the examiner explained the basis for the new matter rejection in greater detail. No agreement was reached.

In the final Office action, the Examiner objected to the amendment filed 30 December 2005 because it allegedly introduces new matter into the disclosure. The added material which is purportedly not supported by the disclosure is the limitation "which is delayed by less than 180 degrees", which refers to a delayed version of the data signal. Attention has been focused on paragraph [0046] of the application which provides:

It is known in the art to monitor the strength of the p-channel and n-channel transistors in an output drive device (not shown) and to generate a two-bit signal where s11 and s12 represent the two bits of the binary signal. The implementation of the output pre-driver 100 in FIG. 6 allows the p-channel device 106 to be rendered conductive independently of the p-channel device 108. The p-channel device 110 can be enabled independently of the p-channel transistor 112. As a result, all four transistors 106, 108, 110 and 112 may be on, transistors 106 and 110 may be on while transistors 108 and 112 may be off, and transistors 108 and 112 may be on while transistors 106 and 110 are off. With the arrangement shown in FIG. 6, three of the four two-bit codes can have different total amounts of p-channel drive enabled in the pre-driver 100. With proper tuning, more skew can be eliminated from the subsequent output driver stages with the pre-driver 100 illustrated in FIG. 6.

The examiner states that "the phrase 'may be on' appears to imply that all of said transistors may be enabled due to 116 and 114 being independently controlled." (emphasis in original) It is respectfully submitted that the Examiner is not free to change the language "may be on" to "may be enabled". The word "on" should be given its ordinary, dictionary meaning. More particularly, on means "in action, operation, or occurrence" as, for example, the TV is on. Webster's New World dictionary, second college edition.

The examiner continues: "said paragraph, in the same sentence, also recites, as alternatives, that 'transistors 106 and 110 may be on while transistors 108 and 112 may be off, and transistors 108 and 112 may be on, while transistors 106 and 110 are off (emphasis added), which would be possible only if the term 'on' or 'off' is understood to mean that respective

transistors are enabled or disabled.” Again, the Examiner replaces the terms “on” and “off” with “enabled” or “disabled”, respectively. The Examiner is not free to replace the words “on” and “off” with “enabled” and “disabled”. Giving the words “on” and “off” their ordinary meanings, the sentence makes perfect sense as written. There is no need to make any substitutions for the words “on” and “off”. Giving the words their ordinary meaning, the four transistors in question cannot all be “on” at the same time (in the same sense that the TV is on) if the signals q and q_l are 180 degrees out of phase.

The examiner also points to FIG. 2 as support for his position. The examiner states that the signals “ q and q_l of Fig. 6 are also shown in Fig. 2, in which they appear to be data signals from sense amplifiers 22 via a data path 24 in Fig. 1. Sense amplifiers commonly generate pairs of complementary data signals.”

The examiner has apparently misunderstood FIG. 2. FIG. 2 illustrates a single-ended driver. In a single-ended driver, the data pad is connected to a voltage source through a resistance (not shown in FIG. 2). The data pad is also connected to ground through two series of transistors, 31, 33, with one series of transistors 31 being gated by the signal q and another series of transistors 33 being gated by the signal q_l . As discussed in the specification, in a single-ended driver, both sets of transistors, i.e., those gated by q and those gated by q_l , are used, together, to pull the data pad down to ground potential. See paragraph [0028] which provides:

The first and second pluralities of enable transistors 31, 33, respectively, must be fully turned on by the signals q and q_l for the drive transistors 32 to provide the proper pull-down load to the data pad 28 that it is servicing so that the voltage level necessary to represent the data being transferred is quickly reached.

See also paragraph [0010] which discusses the prior art as follows:

In the prior art, output slew rates are improved by segmenting the output transistors into two main portions [groups 31, 33] and delaying the switching of one of the portions.

The only difference between q and q_l in such a driver is a slight timing difference (slight delay) used to control the skew of the signal available at the data pad. Carrying that understanding of the single-ended driver of FIG. 2 over to FIG. 6, it would be clear to one of ordinary skill in the art that the signals q and q_l are not 180 degrees out of phase. If q and q_l were 180 degrees out of phase, then the driver would never have more than one-half of the pull down transistors operative at a time, which is an absurd interpretation of FIG. 2.

It is therefore respectfully submitted, based on the plain language of paragraph 46 and based on the disclosure of the operation of the single-ended driver illustrated in FIG. 2, that a

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person of ordinary skill in the art would understand that the delay between q and ql is less than 180 degrees.

In paragraph 4 of the Office action, claims 1-9 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The section 112 rejection is the same rejection as the objection to the specification previously discussed. For the same reasons as discussed above, it is respectfully requested that the section 112 rejection of claims 1-9 be withdrawn.

Applicant has made a diligent effort to place the instant application in condition for allowance. Accordingly, a Notice of Allowance for claims 1 – 9 is earnestly requested. If the Examiner is of the opinion that the instant application is in condition for disposition other than by allowance, the Examiner is respectfully requested to contact applicant's attorney at the phone number listed below.

Respectfully submitted,



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